

REMARKS

The following issues are outstanding in the Office Action dated September 22, 2004:

- Claims 1, 3, 7 and 20 have been rejected under 35 USC § 112, second paragraph, as being indefinite.
- A correction to a drawing reference in the specification at paragraph [0017], line 8 has been noted, "the tower structure 30" should be "the tower structure 40".
- The drawings are objected to under 27 CFR 1.83(a) as not showing every feature of the invention specified in the claims, specifically the limitations in claims 9-12.
- Claims 1, 4, 8, 14, 20, 22 and 23 are rejected under 35 USC 102(b) as being anticipated by Solberg, Jr. et al (US Patent 6,249,261).
- Claims 9-12 are rejected under 35 USC 103(a) as being unpatentable over Solberg, Jr. et al due to obviousness.
- Claims 2 and 21 are rejected under 35 USC 103(a) as being unpatentable over Solberg, Jr. et al in view of Trooper (US Patent 5,291,211) due to obviousness.
- Claims 3, 5-7, 13, 15-19 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In light of the following remarks, Applicant respectfully requests reconsideration of all claims pending in the application.

REJECTIONS UNDER 35 USC § 112

Claims 1, 3, 7 and 20 have been rejected under 35 USC § 112, second paragraph, as being indefinite.

The rejection of claim 1 was based on the lack of antecedent basis for “the first support beam.” An amendment has been made above adding the descriptor “first” to the initial reference to the support beam. The amendment cures this defect and withdrawal of this rejection is requested.

Claim 3 was not complete. An amendment made above cures this defect and withdrawal of this rejection is requested.

The rejection of claim 7 was based on the lack of antecedent basis for “the first support beam.” An amendment has been made above to claim 1 by adding the descriptor “first” to the initial reference to the support beam. The amendment cures this defect in claim 7 and withdrawal of this rejection is requested.

The rejection of claim 20 was based on the lack of antecedent basis for “the first support beam” in line 11 and “the support beam” in line 4. An amendment has been made above adding the descriptor “first” to the initial and subsequent references to the support beam in claim 20. The amendment cures this defect and withdrawal of this rejection is requested.

SPECIFICATION CORRECTION

Applicant respectfully requests that an Examiners amendment be made to correct the specification at paragraph [0017], line 8, from “the tower structure 30” to “the tower structure 40” as noted by the Examiner.

Further, applicant requests that the specification at paragraph [0021], lines 4 and 5, be amended to change the word “tangential” to “perpendicular” in two places. The drawing shown

in Figure 4 clearly illustrates a perpendicular arrangement, which is intended. The word “tangential” was used in error.

OBJECTIONS TO DRAWINGS UNDER 37 CFR 1.83(a)

Claims 9-12 provide specific numerical implementations for the location of the first point which represents the antenna attachment point along the length of the antenna. While the drawings do not specifically illustrate a dimension related to the attachment point, the specification at paragraph [0018] clearly discusses the alternatives related to the location of the support beam attachment along the length of the antenna. Further to this discussion, and in light of the above amendments to claim 1, Applicant requests that this objection be withdrawn.

REJECTIONS UNDER 35 USC § 102

Claims 1, 4, 8, 14, 20, 22 and 23 have been rejected under 35 USC § 102(b) as being anticipated by Solberg Jr. et al (U.S. Patent 6,249,261). An invention is anticipated if all elements of the claims are described or disclosed in the single prior art reference. Solberg Jr. does not anticipate the claimed invention.

The Examiner references figures 2 and 3 of the Solberg Jr. patent. In the Solberg Jr. patent, the inventive concept relates to the use of composite materials for radar cross section reduction in a direction finding array. It is coincidental that the figures also clearly illustrate that antenna elements 202 are mounted on the tower 201 by support beams 203. There is not a particularly compelling structural reason for this mounting configuration in Solberg Jr., nor is there an indication of desire to implement the mounting arrangement near the top of the tower structure in order to have the top portion of the antenna elements clear of the top portion of the supporting tower structure. In the absence of specifically indicating that the antenna mounting is

to be at or near the top of the tower or mast structure, the antenna mounting can be simply categorized as a typical side mount antenna.

In the subject application, it is a primary purpose to provide an advantage for mounting antennas at or near the top of a tower structure. The base claim 1 is amended herein to include this further limitation. Further to this discussion, it is noted that claim 20 already references "the support beam connected to the top of an tower".

Further, it is implicit to the existing wording of base claims 1 and 20 that the top portions of the antennas are elevated above the top of the tower. Solberg, Jr. et al does not disclose this feature. While this characteristic could be described explicitly, the Applicant submits that it follows directly from the current claim wording (as amended for claim 1) and requires no additional clarification.

In light of these amendments and clarifications, the Applicant respectfully requests the withdrawal of the rejection on claims 1 and 20. Further, based on the withdrawal of the rejection on claims 1 and 20, rejected claims 4 and 8, which are dependent on claim 1, as well as rejected claim 22, which is dependent on claim 20, are then also in condition of allowance in the subject application. Further, claim 23, which is dependent on claim 22, is then also in condition of allowance in the subject application.

Rejected claim 14 has been cancelled.

REJECTIONS UNDER 35 USC § 103

Claims 9-12 have been rejected under 35 USC § 103(a) as being unpatentable over Solberg Jr. et al (U.S. Patent 6,249,261).

In light of the amendments to claim 1 above and the request to withdraw the rejection on claim 1, rejected claims 9-12, which are dependent on claim 1, are then also in condition of allowance in the subject application.

Claims 2 and 21 are rejected under 35 USC § 103(a) as being unpatentable over Solberg, Jr. et al in view of Trooper (U.S. Patent 5,291,211).

In light of the amendments to claim 1 above and the request to withdraw the rejection on claim 1, rejected claim 2, which is dependent on claim 1, is then also in condition of allowance in the subject application.

In light of the amendments to claim 20 above and the request to withdraw the rejection on claim 20, rejected claim 21, which is dependent on claim 20, is then also in condition of allowance in the subject application.

ALLOWABLE SUBJECT MATTER

Claims 3, 5-7, 13, 15-19 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In light of the amendments to claim 1 above and the request to withdraw the rejection on claim 1, objected to claims 3, 5-7, 13, and 15-19, which are dependent on claim 1, are then also in condition of allowance in the subject application.

In light of the amendments to claim 20 above and the request to withdraw the rejection on claim 20, objected to claim 24, which is dependent on claim 20, is then also in condition of allowance in the subject application.

SUMMARY

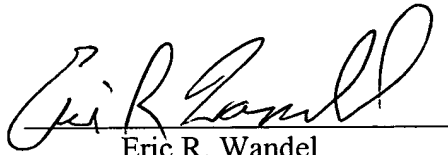
Attached hereto is a marked up version of the changes made to the specification and claims by the current amendment. The attached pages are entitled as "Amendments to the Specification" and "Amendments to the Claims".

Further to the above discussion, Applicant submits that this application is in condition for allowance and early notice of same is earnestly solicited. Should the Examiner have any questions, comments or suggestions, the Examiner is invited to contact Applicant's representative at the telephone number indicated below.

Respectfully submitted,

Date: March 22, 2005

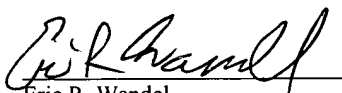
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